IN THE CLAIMS

1-4. (Canceled)

5. (Previously Presented) A method of operating a chemical-vapor-deposition system including a gas-dispersion fixture and having a normal deposition temperature for forming material layers of a predetermined composition, the method comprising:

forming a first material layer of the predetermined composition on the gas-dispersion fixture at a first nominal or average temperature which differs by more than 50 percent from the normal deposition temperature; and

using the gas-dispersion fixture to form a second material layer of the predetermined composition on a substrate at the normal deposition temperature.

6-10. (Canceled)

11. (Previously Presented) A method of conditioning a gas-dispersion fixture in a chemical-vapor-deposition system having a normal deposition temperature for forming material layers of a predetermined composition, the method comprising:

heating at least a portion of the gas-dispersion fixture to a temperature greater than the normal deposition temperature;

forming a material layer of the predetermined composition on at least the portion of the gas-dispersion fixture;

wherein the chemical-vapor-deposition system includes a heated substrate holder, with the heated substrate holder having a normal position relative the gas-dispersion fixture to form material layers of the predetermined composition; and

wherein heating at least a portion of the gas-dispersion fixture to a temperature greater than the normal deposition temperature comprises moving the fixture closer to the heated substrate holder than its normal position.

12. (Original) The method of claim 11, wherein moving the fixture closer to the heated substrate holder than its normal position comprises moving the fixture within 300 mils of the substrate holder.

13. (Previously Presented) A method of conditioning a gas-dispersion fixture in a chemical-vapor-deposition system having a normal deposition temperature for forming material layers of a predetermined composition, the method comprising:

heating at least a portion of the gas-dispersion fixture to a temperature greater than the normal deposition temperature; and

forming a material layer of the predetermined composition on at least the portion of the gas-dispersion fixture; and

introducing a plasma power of over 400 watts near the gas-dispersion fixture.

14. (Canceled)

15. (Previously Presented) The method of claim 11, wherein the material layer consists essentially of titanium, aluminum, chlorine, and nitrogen atoms.

16. (Canceled)

17. (Previously Presented) A method of forming a layer in an integrated circuit, comprising:

conditioning a gas-dispersion fixture in a chemical-vapor-deposition system having a normal deposition temperature for forming material layers of a predetermined composition, wherein conditioning comprises:

heating at least a portion of the gas-dispersion fixture to a temperature greater than the normal deposition temperature by at least ten percent; and

forming a material layer of the predetermined composition on at least the portion of the gas-dispersion fixture; and

using the gas-dispersion fixture to form the layer in the integrated circuit, wherein the material layer consists essentially of titanium, aluminum, chlorine, and nitrogen atoms.

18. (Previously Presented) A method of forming a layer in an integrated circuit, comprising:

conditioning a gas-dispersion fixture in a chemical-vapor-deposition system having a normal deposition temperature for forming material layers of a predetermined composition, wherein conditioning comprises:

heating at least a portion of the gas-dispersion fixture to a temperature greater than the normal deposition temperature by at least ten percent; and

forming a material layer of the predetermined composition on at least the portion of the gas-dispersion fixture; and

using the gas-dispersion fixture to form the layer in the integrated circuit, wherein the material layer comprises titanium.

19. (Original) A method of forming a layer on a surface of a gas-dispersion fixture in a chemical-vapor-deposition system having a normal deposition temperature for forming material layers of a predetermined composition, the method comprising:

heating at least a portion of the surface of the gas-dispersion fixture to a temperature greater than the normal deposition temperature by at least ten percent;

introducing one or more gases around the heated surface of the gas-dispersion fixture; and

electrically exciting the one or more gases to create a plasma.

20. (Original) A method of conditioning a gas-dispersion fixture in a chemical-vapor-deposition system including a heated substrate holder, with the system having a normal deposition temperature for forming material layers of a predetermined composition and the heated substrate holder having a first separation from the gas-dispersion fixture to form material layers of the predetermined composition, the method comprising:

establishing a second separation between the gas-dispersion fixture and the heated substrate holder, with the second separation being less than the first separation; and

forming a material layer of the predetermined composition on at least the portion of the gas-dispersion fixture while the second separation is established.

21. (Previously Presented) The method of claim 20, wherein the material layer consists essentially of titanium, aluminum, chlorine, and nitrogen atoms.

22. (Original) The method of claim 20, wherein the material layer comprises titanium.

23. (Original) A method of conditioning a gas-dispersion fixture in a chemical-vapor-deposition system including a heated substrate holder, with the system having a normal deposition temperature for forming material layers of a predetermined composition and the heated substrate holder having a first separation from the gas-dispersion fixture to form material layers of the predetermined composition, the method comprising:

establishing a second separation between the gas-dispersion fixture and the heated substrate holder, with the second separation being less than the first separation;

operating the heated substrate holder to heat at least a portion of the gas-dispersion fixture to a temperature greater than the normal deposition temperature; and

forming a material layer of the predetermined composition on at least the portion of the gas-dispersion fixture while the second separation is established and while the portion of the gas-dispersion fixture has a temperature greater than the normal deposition temperature.

24. (Previously Presented) The method of claim 23, wherein the material layer consists essentially of titanium, aluminum, chlorine, and nitrogen atoms.

25. (Original) The method of claim 23, wherein the material layer comprises titanium.

26. (Original) A method of conditioning a gas-dispersion fixture in a chemical-vapor-deposition system including a heated substrate holder, with the system having a normal deposition temperature for forming material layers of a predetermined composition and the heated substrate holder having a first separation from the gas-dispersion fixture to form material layers of the predetermined composition, the method comprising:

establishing a second separation between the gas-dispersion fixture and the heated substrate holder, with the second separation being less than the first separation;

operating the heated substrate holder to heat at least a portion of the gas-dispersion fixture to a temperature greater than the normal deposition temperature;

forming a material layer of the predetermined composition on at least the portion of the gas-dispersion fixture while the second separation is established and while the portion of the gas-dispersion fixture has a temperature greater than the normal deposition temperature, wherein forming the material layer comprises:

introducing one or more gases around the heated portion of the gas-dispersion fixture; and

electrically exciting the one or more gases.

27. (Original) The method of claim 26, wherein operating the second separation occurs prior to operating the heated substrate holder to heat the portion of the gas-dispersion fixture and wherein forming the material layer occurs after operating the heated substrate holder.

28. (Previously Presented) The method of claim 26, wherein the material layer consists essentially of titanium, aluminum, chlorine, and nitrogen atoms.

29. (Original) The method of claim 26, wherein the material layer comprises titanium.

30. (Original) A method of conditioning a showerhead in a chemical-vapor-deposition system including a heated substrate holder, with the system having a normal deposition temperature for forming material layers of a predetermined composition and the heated substrate

holder having a first separation from the showerhead to form material layers of the predetermined composition, the method comprising:

establishing a second separation between the showerhead and the heated substrate holder, with the second separation being less than the first separation;

operating the heated substrate holder to heat at least a portion of the showerhead to a temperature greater than the normal deposition temperature;

forming a material layer of the predetermined composition on at least the portion of the showerhead while the second separation is established and while the portion of the showerhead has a temperature greater than the normal deposition temperature, wherein forming the material layer comprises:

introducing one or more gases around the heated portion of the showerhead; and

electrically exciting the one or more gases to create a plasma.

31. (Original) The method of claim 30, wherein operating the second separation occurs prior to operating the heated substrate holder to heat the portion of the showerhead and wherein forming the material layer occurs after operating the heated substrate holder.

32. (Original) The method of claim 30, wherein heating occurs before forming the material layer.

33. (Original) The method of claim 30, wherein the second separation is less than or equal to 300 mils.

34. (Original) The method of claim 30, wherein the plasma has a power greater than about 400 watts.

35. (Original) The method of claim 30, wherein forming the material layer of the predetermined composition on at least the portion of the gas-dispersion fixture, comprises passing one or more gases through the gas-dispersion fixture.

36. (Previously Presented) The method of claim 30, wherein the material layer consists essentially of titanium, aluminum, chlorine, and nitrogen atoms.

37. (Original) A method of operating a chemical-vapor-deposition system including a gas-dispersion fixture and a heated substrate holder, with the system having a normal deposition temperature for forming material layers of a predetermined composition and the heated substrate holder having a first separation from the gas-dispersion fixture to form material layers of the predetermined composition, the method comprising:

establishing a second separation between the gas-dispersion fixture and the heated substrate holder, with the second separation being less than the first separation;

operating the heated substrate holder to heat at least a portion of the gas-dispersion fixture to a temperature greater than the normal deposition temperature;

forming a material layer of the predetermined composition on at least the portion of the gas-dispersion fixture while the second separation is established and while the portion of the gas-dispersion fixture has a temperature greater than the normal deposition temperature, wherein forming the material layer comprises:

introducing one or more gases around the heated portion of the gas-dispersion fixture; and

electrically exciting the one or more gases to create a plasma;

re-establishing the first separation between the gas-dispersion fixture and the heated substrate holder;

placing a substrate on the heated substrate holder;

heating the substrate to the normal deposition temperature; and

forming a material layer of the predetermined composition on at least a portion of the substrate at the normal deposition temperature.

38. (Original) A method of operating a chemical-vapor-deposition system including a gas-dispersion fixture and a heated substrate holder, with the system having a normal deposition temperature for forming material layers of a predetermined composition and the heated substrate

holder having a first separation from the gas-dispersion fixture to form material layers of the predetermined composition, the method comprising:

establishing a second separation between the gas-dispersion fixture and the heated substrate holder, with the second separation being less than the first separation;

operating the heated substrate holder to heat at least a portion of the gas-dispersion fixture to a temperature greater than the normal deposition temperature;

forming a material layer of the predetermined composition on at least the portion of the gas-dispersion fixture while the second separation is established and while the portion of the gas-dispersion fixture has a temperature greater than the normal deposition temperature by at least 20 percent, wherein forming the material layer comprises:

introducing one or more gases around the heated portion of the gas-dispersion fixture; and

electrically exciting the one or more gases to create a plasma;

re-establishing the first separation between the gas-dispersion fixture and the heated substrate holder;

placing a substrate on the heated substrate holder;

heating the substrate to the normal deposition temperature; and

forming a material layer of the predetermined composition on at least a portion of the substrate at the normal deposition temperature.

39. (Original) In a chemical-vapor-deposition system including a susceptor and a gas-dispersion fixture and having a normal deposition temperature and a normal separation between the susceptor and the gas-dispersion fixture for forming material layers of a predetermined composition, a method of improving adhesion characteristics of a material layer of the predetermined composition to a surface of the gas-dispersion fixture, the method comprising:

heating at least a portion of the surface of the gas-dispersion fixture to a temperature greater than the normal deposition temperature; and

establishing a separation between the susceptor and the gas-dispersion fixture, which is less than the normal separation.